

VEGETABLE OIL DISPOSAL UNIT (MSDU) OPERATOR & SERVICE MANUAL



This equipment chapter is to be inserted in the Fryer section of the *Equipment Manual*.

MANUFACTURED BY

 **Frymaster®**

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THIS MANUAL SUPERCEDES ALL PREVIOUS EDITIONS OF THE MSDU OPERATOR AND SERVICE MANUAL.

⚠️ WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing, operating or servicing this equipment.

⚠️ DANGER

Hot vegetable oil will cause severe burns. Allow vegetable oil to cool to 100°F (38°C) before transporting to the disposal site. Use extreme caution when transporting and disposing of spent vegetable oil.

NOTICE:

Drawings and photos used in this manual are intended to illustrate operational, cleaning and technical procedures and may not conform to on-site management operational procedures.

NOTICE

IF, DURING THE WARRANTY PERIOD, THE CUSTOMER USES A PART FOR THIS ENODIS EQUIPMENT OTHER THAN AN UNMODIFIED NEW OR RECYCLED PART PURCHASED DIRECTLY FROM FRYMASTER/DEAN, OR ANY OF ITS AUTHORIZED SERVICE CENTERS, AND/OR THE PART BEING USED IS MODIFIED FROM ITS ORIGINAL CONFIGURATION, THIS WARRANTY WILL BE VOID. FURTHER, FRYMASTER/DEAN AND ITS AFFILIATES WILL NOT BE LIABLE FOR ANY CLAIMS, DAMAGES OR EXPENSES INCURRED BY THE CUSTOMER WHICH ARISE DIRECTLY OR INDIRECTLY, IN WHOLE OR IN PART, DUE TO THE INSTALLATION OF ANY MODIFIED PART AND/OR PART RECEIVED FROM AN UNAUTHORIZED SERVICE CENTER.

MCDONALD'S VEGETABLE OIL DISPOSAL UNIT (MSDU)

CHAPTER 1: INTRODUCTION

1.1 Service Information and Parts Ordering

Included with the unit when shipped from the factory is a list of Factory Authorized Service Centers (FASCs). Refer to this list to find the FASC nearest you. If you do not have access to this list, contact the Frymaster Technical Service Department at 1-800-551-8633 or 1-318-865-1711.

Service information may be obtained by contacting your local FASC. Information may also be obtained by calling the Frymaster Technical Service Department at 1-800-551-8633 or 1-318-865-1711. In order to assist you as quickly as possible, the FASC or Service Department representative requires certain information about your equipment. The information is printed on a data plate located on the tank cover. When requesting service, please have the following information ready:

Model Number: _____
Serial Number: _____

In addition to the model number, and serial number, please be prepared to describe the nature of the problem and have ready any other information that you think may be helpful in solving your problem. Parts orders may be placed directly with your local FASC or distributor. When ordering parts, the following information is required:

Model Number: _____
Serial Number: _____
Item Part Number: _____
Quantity Needed: _____

RETAIN AND STORE THESE INSTRUCTIONS IN A SAFE PLACE FOR FUTURE USE.

1.2 Installation, Operating and Service Personnel

Installation, Operating, and Service information for this equipment has been prepared for use by qualified and/or authorized personnel only, as defined in Section 1.4.

1.3 Definitions

QUALIFIED AND/OR AUTHORIZED OPERATING PERSONNEL

Qualified/authorized operating personnel are those who have carefully read the information in this manual and have familiarized themselves with the equipment functions, or who have had previous experience with the operation of the equipment covered in this manual.

MCDONALD'S VEGETABLE OIL DISPOSAL UNIT (MSDU)

CHAPTER 1: INTRODUCTION

1.3 Definitions (cont.)

QUALIFIED SERVICE PERSONNEL

Qualified service personnel are those who are familiar with this equipment and who have been authorized by Frymaster L.L.C. to perform service on equipment manufactured by Frymaster. All authorized service personnel are required to be equipped with a complete set of service and parts manuals, and to stock a minimum amount of parts for Frymaster equipment. A list of Factory Authorized Service Centers (FASCs) was included with this equipment when shipped from the factory. *Unless specifically indicated otherwise in this manual, failure to use qualified service personnel will void the Frymaster Warranty on this equipment.*

1.4 Shipping Damage Claim Procedure

This equipment was carefully inspected and packed before leaving the factory. The transportation company assumes full responsibility for safe delivery upon acceptance of the equipment for transport.

WHAT TO DO IF YOUR EQUIPMENT ARRIVES DAMAGED:

1. **File a claim for damages immediately**, regardless of the extent of damages.
2. **Inspect for and record all visible loss or damage** and ensure that this information is noted on the freight bill or express receipt and is signed by the person making the delivery.
3. **Concealed loss or damage** that was unnoticed until the equipment was unpacked should be recorded and reported to the freight company or carrier **immediately** upon discovery. A concealed damage claim must be submitted within 15 days of the date of delivery. Ensure that the shipping container is retained for inspection.



**Frymaster® DOES NOT ASSUME RESPONSIBILITY
FOR DAMAGE OR LOSS INCURRED IN TRANSIT.**

MCDONALD'S VEGETABLE OIL DISPOSAL UNIT (MSDU)
CHAPTER 1: INTRODUCTION

1.5 Warranty Statement

1. WARRANTY PROVISIONS

- A. Frymaster L.L.C. warrants all components against defects in material and workmanship for a period of one year (parts only).**

2. PARTS RETURN

- A. All defective in-warranty parts must be returned to a Frymaster Authorized Service Center (FASC) within 60 days for credit. After 60 days, no credit will be allowed.**
- B. This warranty is void if equipment is found by Frymaster L.L.C. to have been subjected to alteration, misuse or abuse.**

MCDONALD'S VEGETABLE OIL DISPOSAL UNIT (MSDU)

CHAPTER 2: ASSEMBLY & OPERATION INSTRUCTIONS

2.1 Equipment Description

The McDonald's Vegetable Oil Disposal Unit (MSDU) is designed for the safe transportation of used vegetable oil from the kitchen to a disposal container. The MSDU will hold up to 50-lbs./23 kg of vegetable oil.

The MSDU consists of a reservoir to receive waste vegetable oil from a fryer and a heavy-duty manual pump for transferring the vegetable oil to a disposal container.

The MSDU is equipped with 7" (178 mm) wheels and foldable handles. The pump is mounted at a convenient height that allows it to be operated from a standing position. With the cover open, the top of the reservoir is 11-½" (292 mm) above the floor, permitting the reservoir to be positioned directly beneath the drains of most fryers.

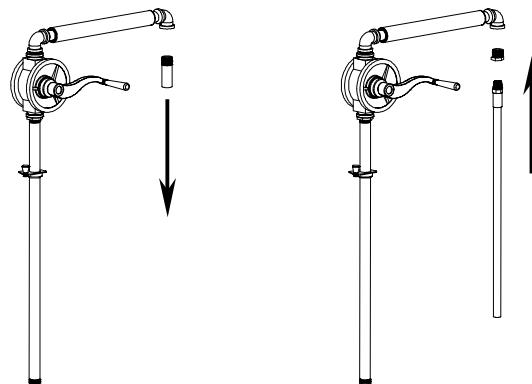
2.2 Equipment Assembly

Assembly of the unit is a four-step process:

1. Remove the two lock pins from the handle-mounting bracket and raise the handle to the upright position. Reinstall the lock pins in the bracket.
2. Insert the suction tube and pump assembly through the pipe bracket on the handle.

NOTE: Ensure the O-rings and the bottom 2 inches of the suction tube are lubricated with *Accrolube with Teflon* or an equivalent light oil or grease.

3. Insert the suction tube into the pickup tube on top of the reservoir. Push down on the pump assembly and ensure the suction tube is fully seated.
4. If the optional discharge hose is to be installed, remove the 3-inch discharge nipple from the discharge pipe assembly. Apply thread sealer to the outer threads of the reducing bushing and screw it securely into the elbow of the discharge pipe assembly. Apply thread sealer to the threads of the discharge hose fitting and screw the discharge hose into the bushing on the discharge pipe assembly. Tighten both fittings securely with a wrench.



Remove nipple, and then install bushing and hose assembly.

MCDONALD'S VEGETABLE OIL DISPOSAL UNIT (MSDU) CHAPTER 2: ASSEMBLY & OPERATION INSTRUCTIONS

2.3 Equipment Operation

! WARNING

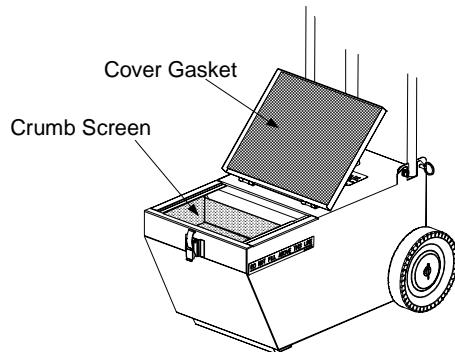
DO NOT use this unit to dispose of water or Boil-out solution. Introduction of water or solvents into the unit will permanently damage the pump.

1. Turn the fryer off prior to draining into MSDU. If so equipped, ensure the fryer drainpipe is firmly threaded into the frypot drain valve.
2. Open the cover, verify that the crumb screen and rubber gasket on the inside cover are in place, and position the unit so that the opening is directly under the frypot drainpipe.

! DANGER

Before each use inspect the cover to ensure the cover gasket is present and properly placed.

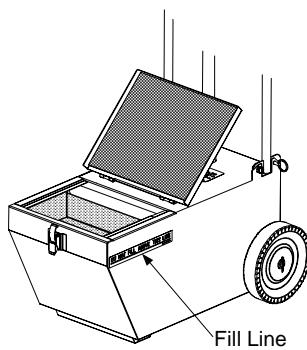
DO NOT use the disposal unit if this gasket is damaged or missing.



3. *Slowly* open the drain valve. Regulate flow with the drain valve to prevent splashing.

! DANGER

DO NOT OVERFILL! Do not fill the reservoir above the fill lines on the sides of the reservoir. Moving the MSDU with an overfilled reservoir may result in spills and injury to personnel who come in contact with the spilled vegetable oil.



4. Carefully withdraw the unit far enough to allow the cover to be closed. Latch the cover in the closed position. Using the handle, carefully tip the unit back slightly for ease of handling and roll the unit to the disposal site.

MCDONALD'S VEGETABLE OIL DISPOSAL UNIT (MSDU)
CHAPTER 2: ASSEMBLY & OPERATION INSTRUCTIONS

2.3 Equipment Operation (cont.)

⚠️ WARNING

DO NOT use the pump or discharge piping assembly as a handle!

⚠️ DANGER

To minimize the potential for burns, vegetable oil MUST always be allowed to cool below 100°F (38°C) before draining into the MSDU and transporting to the disposal area. DO NOT allow vegetable oil to solidify in the MSDU.

The unit is designed to be moved, when properly filled, at an average walking pace on a flat surface. However, ***care must be taken at all times when moving hot vegetable oil. Rough terrain or sudden stops and starts may cause the contents of the reservoir to spill or splash out of the reservoir, possibly causing serious injury to personnel.***

5. At the disposal site, lift the pump assembly lock pin and rotate the discharge pipe as necessary to position the discharge nipple over the opening of the disposal container. Release the lock pin to secure the pump assembly in position. Turn the pump handle (clockwise). The pump is self-priming and will start discharging vegetable oil after a few turns. Continue turning the handle until the MSDU reservoir is empty.

2.4 Cleaning

Clean the crumb screen with a solution of detergent and water. Clean the ***exterior surfaces*** of the MSDU with a soft cloth and a solution of detergent and water. It is not necessary to clean the interior of the reservoir, but if desired it may be wiped down with clean paper towels to remove excess residual vegetable oil.

⚠️ WARNING

DO NOT clean the interior of the reservoir with water or detergent. Introduction of water or detergent into the unit will permanently damage the pump.

MCDONALD'S VEGETABLE OIL DISPOSAL UNIT (MSDU)

CHAPTER 3: SERVICE PROCEDURES AND PARTS LIST

3.1 Introduction

Other than routine cleaning, the MSDU requires almost no maintenance. The exceptions are replacement of the suction tube O-rings and replacement of worn pump vanes and/or the pump-lip seal. These service actions may be performed by store personnel without voiding the warranty.

3.2 Replacing Worn or Damaged O-Rings

If pump efficiency degrades, it is likely that the O-rings on the suction tube are worn or damaged. To replace the O-rings, follow the steps below.

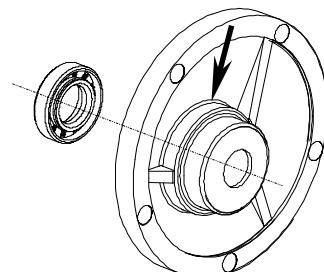
1. Lift the pump assembly straight up and out of the handle assembly.
2. Remove the worn or damaged O-rings from the grooves at the bottom of the suction tube and replace with new O-rings. Apply *Accrolube with Teflon* grease or equivalent to bottom 2 inches of the suction tube.
3. Insert the suction tube through the tube bracket in the handle and into the receiver on top of the reservoir. Push down on the pump assembly to make sure the suction tube is fully seated.

3.3 Replacing Worn Pump Vanes and/or Pump-Lip Seal

Depending upon the amount of use, the vanes in the pump assembly will eventually wear, reducing the efficiency of the pump. The pump-lip seal can wear over time and start to leak. When this occurs, a kit is available for replacing the worn vanes and pump-lip seal. The pump-lip seal can also be purchased separate to replace defective seals. To replace the pump vanes, and/or the pump-lip seal, follow the steps below.

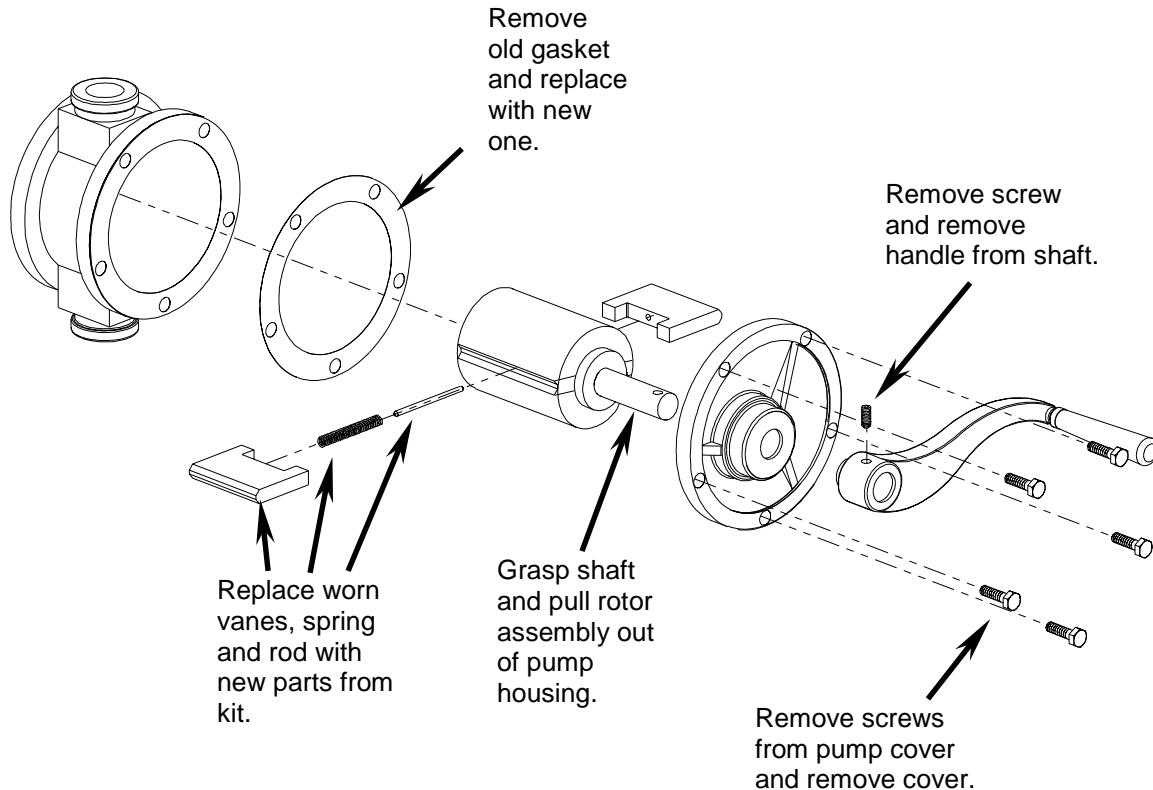
1. Remove the screw securing the pump handle to the pump shaft and slip the handle off the shaft.
2. Remove the five screws securing the front cover to the pump housing and remove the cover.
3. If replacing the pump-lip seal only, remove the old seal and install the new seal. Proceed to Step 6 if not replacing pump vanes. If replacing pump vanes and associated hardware, proceed to Step 4.

Pump-lip seal location (arrow).



MCDONALD'S VEGETABLE OIL DISPOSAL UNIT (MSDU)
CHAPTER 3: SERVICE PROCEDURES AND PARTS LIST

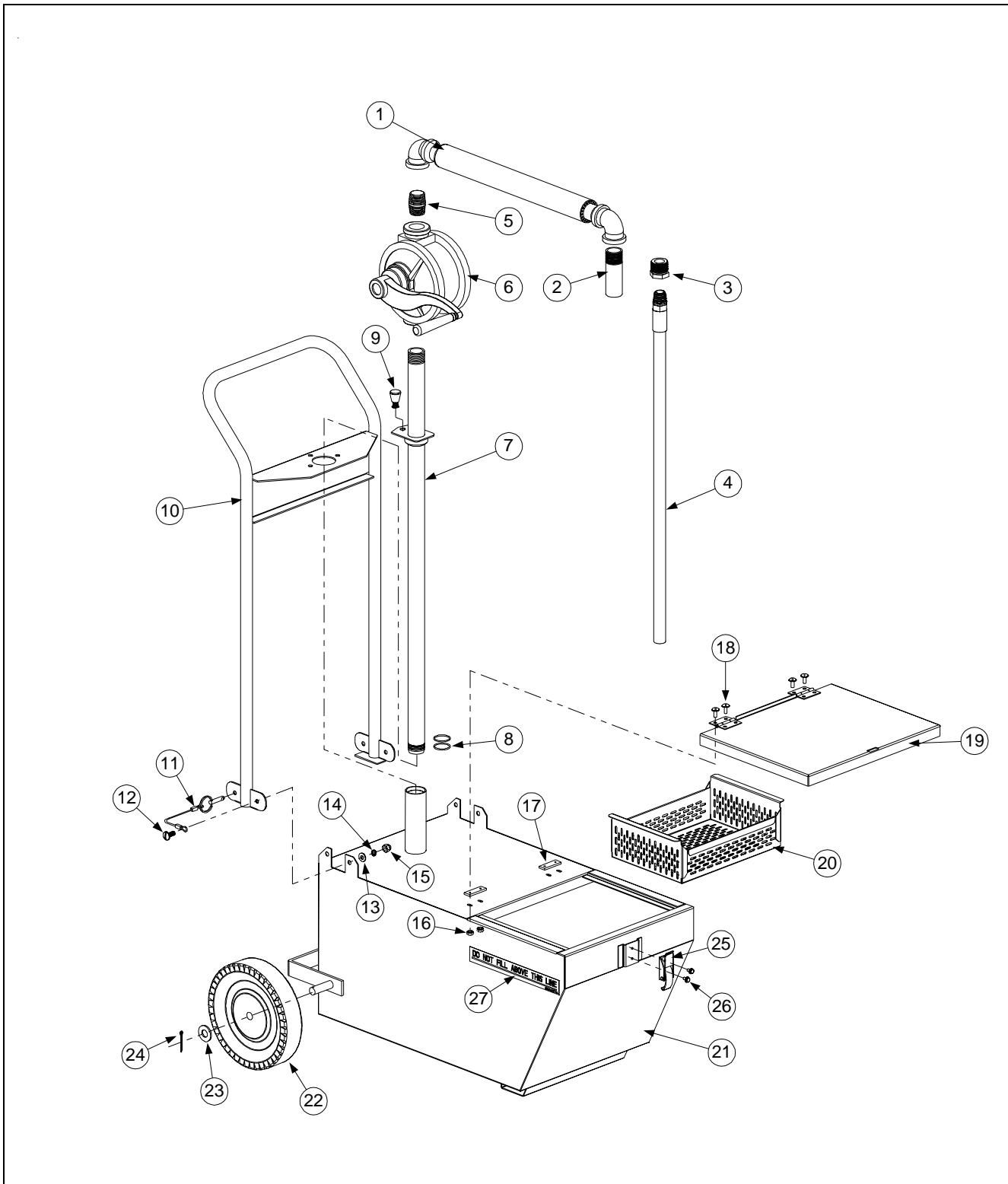
3.3 Replacing Worn Pump Vanes and/or Pump-Lip Seal (cont.)



4. Grasp the shaft and carefully pull the rotor assembly straight out of the pump housing far enough to expose the vanes. **IMPORTANT:** The vanes are spring-loaded. Use one hand to hold the vanes while pulling the rotor assembly the rest of the way out of the housing. Carefully release the vanes and discard the worn vanes, springs, and rods. Remove the old gasket from the pump housing and replace with the new gasket furnished in the kit.
5. Assemble the replacement vanes, spring and rod into the rotor assembly. Compress the vane spring and carefully insert the rotor assembly back into the pump housing.
6. Slip the cover over the shaft and align the pins in the cover with the holes in the pump housing. Reinstall the five screws removed in Step 2 and tighten securely (Torque approximately 60 inch-pounds).
7. Slip the pump handle back onto the shaft and align the screw hole in the handle with the screw hole in the shaft. Reinstall the screw removed in Step 1 and tighten securely.

MCDONALD'S VEGETABLE OIL DISPOSAL UNIT (MSDU)
CHAPTER 3: SERVICE PROCEDURES AND PARTS LIST

3.4 Parts List



MCDONALD'S VEGETABLE OIL DISPOSAL UNIT (MSDU)
CHAPTER 3: SERVICE PROCEDURES AND PARTS LIST

3.4 Parts List (cont.)

Item	Part #	Description
1	823-2943	Pipe Assembly, Discharge
2	813-0115	Nipple, Toe- $\frac{3}{4}$ x 3" NPT BM
3	813-0031	Bushing, $\frac{3}{4}$ x $\frac{1}{2}$ " NPT (Use With Item 4)
4	810-1845	Hose, Discharge (Optional)
5	813-0109	Nipple, $\frac{3}{4}$ " x Close NPT BM
6	810-0784	Pump, Oil- MSDU
*	826-1053	Pump Repair Kit: Includes two vanes, one spring, one rod, one pump-lip seal and one pump-cover gasket.
*	816-0401	Seal, Lip- Pump Shaft
7	823-2040	Pipe Assembly, Suction
8	816-0132	O-ring, Suction Pipe Assembly
9	810-0777	Pin, Plunger
10	823-2038	Handle Assembly, MSDU
11	810-1220	Pin Assembly, Handle
12	809-0129	Screw, $\frac{1}{4}$ -20 x 5/8" Slotted Head
13	809-0193	Washer, Flat Nylon- $\frac{1}{4}$ " (<i>This washer is positioned between the tank flange and the handle assembly flange.</i>)
14	809-0191	Washer, Lock- $\frac{1}{4}$ " Spring
15	809-0047	Nut, Cap- $\frac{1}{4}$ -20 S/S
16	826-1376	Nut, Keps- 10-32 (Qty:10)
17	816-0133	Gasket, Cover Hinge
18	809-0119	Screw, 10-32 x $\frac{1}{2}$ " Slotted Head
19	823-1683	Cover, MSDU
*	816-0134	Gasket, Cover (Use 3M 1300L Adhesive or equivalent to bond gasket to inside cover.)
20	824-0438	Screen, Crumb- MSDU
21	823-2039	Tank, MSDU
22	810-1112	Wheel, 7 x 1- $\frac{1}{2}$ "
23	809-0200	Washer, Flat- Wheel
24	810-0783	Pin, Cotter- Wheel
25	810-0742	Latch, Tank Cover
26	809-0359	Screw, #8 x $\frac{1}{4}$ " (Cover Latch)
27	802-0227	Label, Fill Line
* Not Illustrated		



Frymaster®

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